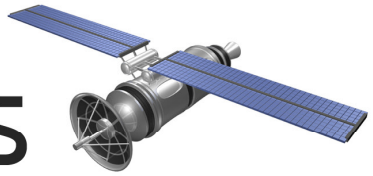
FutureHorizons

The Global Semiconductor Industry Analysts



Future Horizons Monthly Newsletter

JULY 2011

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Industry Overview

April's WSTS followed the normal first month of the quarter pattern, with units up and ASPs down versus March 2011. Although units were up 1.0 percent versus April 2010, ASPs were down 3.2 percent, making April's overall year-on-year growth negative 2.3 percent. Whereas no month's individual annualised growth rate gives any direct indication of what the overall year-on-year number will be, it does set the quarter off to a very slow start, a disappointment to Q1's robust start to the year.

A full market summary and industry capacity round up can be found each month in our Semiconductor Monthly report.

Industry News By Company

Apple To Unveil Own Cloud Service

Apple CEO Steve Jobs will announce a range of new products, including a widely anticipated cloud service, at its developer conference next week.

iCloud is likely to offer services rivaling that of Google and Amazon.

Attendees will also see Lion, the latest version of Apple's Macintosh operating system, and an upgraded version of mobile system iOS.

Brite Semiconductor Achieves First-Pass Silicon Success with SMIC's 40nm Process

Brite Semiconductor (Shanghai) Corporation and Semiconductor Manufacturing International Corporation ("SMIC"; NYSE: SMI; SEHK: 0981.HK) today announced that they have achieved first-pass silicon success with Brite's first 40nm chip, using SMIC's 40nm process technology.

Brite Semiconductor's independently designed 40nm chip is the result of Brite's collaboration with Synopsys Inc. and SMIC. It integrates Synopsys' DesignWare® embedded memory and standard cell libraries, and SMIC's independently developed PLL and I/O IP. The successful implementation of the design has proven Brite's front-end and back-end design flows on 40nm advanced technology.

Elpida Unveils Thinnest Mobile Chip Package

Elpida Memory Inc. said Wednesday that it has developed a memory chip package that is 20% thinner than similar packages on the market, a breakthrough that the company says will help make mobile gadgets thinner while maintaining their memory capacity.

Elpida—Japan's only maker of dynamic random access memory, or DRAM, chips—said the new one-gigabyte package containing four stacked chips is the world's thinnest DRAM package of its kind. The chip package, designed for smartphones and other mobile devices, is 0.8 millimeter thick, compared with existing similar packages that are one millimeter thick, the company said.

Entegris Plans To Open Manufacturing Facility For Production Of 450 Mm Semiconductor Wafer Handling Products

Entegris disclosed their plans of opening an advanced technology manufacturing facility that would be involved in producing 450 mm semiconductor wafer handling products and Extreme Ultraviolet Light reticle pods.

Entegris plans to deploy the new manufacturing unit at Colorado Springs. At the new unit, Entegris intends to manufacture wafer handling products that would support the new 450 mm wafers. The production unit would span 40,000 square foot and would boost the manufacturing presence of Entegris in Colorado Springs.

Freescale, BMW Team On 360-Degree View

PORTLAND, Ore.--Parking assistance systems that give drivers a 360-degree view of obstacles around them are currently only available on high-end models, but Freescale Semiconductor Inc.--working with engineers at BMW--claims to have created a technology capable of reducing the cost enough to make them standard equipment.

"Freescale and BMW have cooperated on the definition of a new generation of Qorivva 32-bit microcontrollers, which we believe will enable surround-camera parking assistance systems to migrate to a broader range of vehicles," said Allan McAuslin, product marketing manager of safety and chassis microcontrollers at Freescale.

Hynix Holders Try to Shed Stake

Creditors-turned-shareholders of Hynix Semiconductor Inc. plan to launch the sale of their controlling stake in the company by the end of June, a person familiar with the situation said Wednesday, marking their third attempt in as many years to unload the stake.

The person said the nine creditors—who collectively hold a 15% stake in Hynix, the world's second-largest computer memory chipmaker by revenue, valued at 2.58 trillion won ($2.38 billion) based on current market prices—aim to set a deadline for letters of intent from interested bidders sometime in early July. He declined to elaborate on the deal, which will be the second major asset sale to be put up for sale in Korea this year.

Infineon To Invest $443m In Singapore

GERMAN semiconductor giant Infineon will pump 250 million euros (S$443 million) into Singapore over the next few years.

This year alone, it intends to invest 50 million euros into Singapore, where it has a chip testing site as well as a research and design centre employing nearly 2,000 workers.

As part of this expansion, said Infineon's chief executive Peter Bauer, who announced the expansion plan this morning at a media conference at the Pan Pacific Hotel, will hire another 130 staff for its design centre, which currently employs 250 engineers.

MIPS: More Than 90% Of Android Apps Can Run On Any Processor Architecture

Android has been a hot topic at Computex Taipei this year, with various players discussing the pros and cons of developing apps for the respective hardware platforms such as ARM or x86. However when it comes to the MIPS platform, CEO and president of MIPS, Sandeep Vij pointed out that in terms of the application universe, well over 90% of the apps that are available in the Android marketplace work on MIPS.

Vij explained that some fragmentation has occurred so there are a small percentage of applications developed with native code that will not work between different chips, but Google is taking this issue quite seriously, making people sign anti-fragmentation agreements.

Oxford Instruments To Acquire Two Groups

Oxford Instruments, the provider of high technology tools and systems for industrial and academic research, has placed shares worth nearly £40m ($65m) to fund the acquisition of two businesses which extends its involvement in the nanotechnology market.

The company, the first commercial spin-out company from Oxford University, embarked on the placing which raised £39m on the same day it modestly beat analysts' expectations with a 24 per cent jump in full-year revenue from £212m to £262m and a rise in pre-tax profits from £18m to £27m.

Qualcomm Atheros And Wilocity Announce Tri-Band Wi-Fi: Industry's First Standards-Compliant, Multi-Gigabit Wireless Chipset

Qualcomm Atheros Inc., the networking and connectivity subsidiary of Qualcomm Incorporated (NASDAQ: QCOM), and Wilocity, a leading developer of 60 GHz multi-gigabit wireless chipsets for the mobile computing, consumer electronics and peripheral markets, today announced the AR9004TB, the industry's first tri-band Wi-Fi chipset that integrates the multi-gigabit performance of in-room 60 GHz band with seamless handoff to 2.4 GHz and 5 GHz band Wi-Fi. The new AR9004TB solution is the first chipset capable of supporting a wide range of applications, from I/O to video to networking, at the same speeds as equivalent wired connectivity technologies, while maintaining whole home coverage and complete interoperability.

Rambus Signs Patent-License Deal With Freescale Semiconductor

Rambus Inc. (RMBS) said it signed a patent-licensing agreement with Freescale Semiconductor Inc. (FSL.XX) for technology in memory controllers and serial links.

Shares in the memory-chip technology licenser were up 2.5% at $14.02 in after-hours trading. Through the close, the stock has fallen 33% since the beginning of the year, while the wider market has increased slimly.

The deal covers five years, but all other terms were confidential. Sharon Holt, the general manager of the Semiconductor Business Group, called Freescale a global leader in embedding processing and said the agreement shows the strength of Rambus's patented technology.

Samsung Begins 30nm 32GB Memory

Samsung Begins Mass Producing 30nm-class, 32-Gigabyte Memory Modules for Green IT Systems

Samsung Electronics announced that it is the first in the industry to start mass producing 32 gigabyte (GB) memory modules, essential for cloud computing and advanced server systems, using 30 nanometre (nm) class four gigabit (Gb) DDR3 DRAM chips.

Japan To Merge Sony And Toshiba's LCD Units

Japan is seeking to protect its lead in the production of touchscreen displays used in smartphones and tablet computers with a plan to merge operations owned by Sony and Toshiba into a new company that would be majority-owned by the government.

According to people familiar with the matter, Sony and Toshiba are in talks to shift production of small liquid crystal displays to a joint venture with the Innovation Network Corporation of Japan (INCJ), an investment fund that has received more than 90 per cent of its capital from the state.

TSMC May Beat Intel With World's First 3D Chips

Taiwan Semiconductor Manufacturing Co. is vying with Intel to become the first company to sell three-dimensional chips that boost the density of transistors in a single semiconductor by up to 1000 times.

TSMC, the world's largest contract chipmaker, could make its first 3D chips commercially available before the end of 2011, according to a person close to the situation who requested anonymity.

The timeframe for TSMC matches the end-2011 schedule that Intel has set for the launch of its 3D Tri-Gate chips, which the company expects to be the world's first commercial 3D chip and the most significant advance in chip technology since the development of the chip transistor in the 1950s.

Industry News & Trends

Semiconductor Companies Unite To Make Electronics 'See'

A bevy of semiconductor companies have teamed up to push the adoption of embedded technologies that can make electronics "see."

This so-called embedded vision equates to making all electronics more like Microsoft's Kinect gaming system.

More than 15 chipmakers—including Analog Devices, Nvidia, Texas Instruments and Freescale—formed the Embedded Vision Alliance (EVA). The group aims to make electronics and components more aware of their surroundings.

These embedded vision technologies will be targeted at various vertical markets such as healthcare, auto and industrial services. Microsoft has also said recently that it plans to apply the Kinect technology into more markets in the enterprise.

CIGS To Emerge As The Major Technology By 2020

Despite caution in the overall PV industry, the thin film market is expected to experience an overwhelming growth in coming years with CIGS coming out on top in the next 9 years.

Reportlinker.com is now marketing the report, "Thin - Film Photovoltaic (PV) Cells Market Analysis to 2020 - CIGS (Copper Indium Gallium Diselenide) to Emerge as the Major Technology by 2020."

The report provides key data, information and analysis on the current status and future outlook of Global Thin film industry. The global thin film PV market, despite caution in the overall PV industry, is expected to experience an overwhelming growth in coming years.

Helping Chips To Sip Power

A team of Silicon Valley veterans is claiming they can reduce power consumption in computer chips by 50%, potentially extending the battery life of portable devices and helping chip manufacturers keep pace with giants like Intel Corp.

Their start-up, SuVolta Inc., on Monday plans to announce that the semiconductor arm of Japan's Fujitsu Ltd. is licensing its technology to make chips starting next year. Assuming other companies follow suit— some analysts say the closely held company could have a broad impact on the industry.

Raspberry Pi: Computer On A Stick For Only $25

A British nonprofit has a novel idea for getting kids interested in computer programming--a computer that fits in a pocket and costs less than the latest video game.

It's called Raspberry Pi, and the prototype isn't pretty--it looks like a leftover scrap from electronics recycling day. But it's a working computer that game developer David Braben

and his Cambridge-connected colleagues expect to make available for only $25 for a fully configured system.

Don't expect to see Raspberry Pi on store shelves anytime soon--although I think it'd do pretty well in the check-out line in between the tabloid mags and packs of Trident--because the rough prototype still needs some refining and the Raspberry Pi Foundation's goal is to get the systems into the hands of children in both the developed and developing world.

Liquid Batteries May Provide Future Power

One of the core problems for electric powered devices—everything from your mobile phone to a car—is battery technology. Batteries are simply not good enough.

However MIT news reports on a significant advance in battery architecture that, it says, could be a breakthrough for electric vehicles and grid storage (so not your mobile then). Liquid, or at least semi-liquid, batteries.

The new battery relies on an innovative architecture called a semi-solid flow cell, in which solid particles are suspended in a carrier liquid and pumped through the system. In this design, the battery's active components — the positive and negative electrodes, or cathodes and anodes — are composed of particles suspended in a liquid electrolyte. These two different suspensions are pumped through systems separated by a filter, such as a thin porous membrane.

Graphene Based IC Chips; The Next Imminent Trend In Semiconductor Tech

IBM researchers have developed first integrated-circuit fabricated from wafer-size Graphene where a RF mixer operating at the frequencies up to 10 GHz is integrated in the circuit. This 10 GHz frequency capability in a single chip can enable wireless devices handle superior bandwidth compared to the present silicon based semiconductor devices. This technology can also enable defense electronics to scan objects for more hidden things using simple handheld devices, be emitting safer radiation.

IBM has created the Graphene by thermal annealing processing of silicon carbide (SiC) to high temperatures resulting in the production of epitaxial Graphene. Graphene based transistor circuits are fabricated by IBM using four metal layers and two oxide layers. The integrated circuit also has on-chip inductors and interconnects. The RF electronic components inside this chip shown a thermal stability up to 125 Deg C.

Start-Up's Camera Allows Photos to Be Refocused

A Silicon Valley start-up is expected on Wednesday to unveil plans to sell a new kind of still camera which generates an image that can be refocused by viewers after its creation.

A Mountain View start-up called Lytro is promising that its camera, due later this year, will bring the biggest change to photography since the transition from film to digital, with technology that shifts the focus of picture-taking. Ina Fried reports on digits.

The closely held company, Lytro Inc., says its technology will offer consumers an array of benefits—including all but eliminating focus problems in taking pictures and allowing users to generate 3-D images with one rather than two cameras.

Solar Powered 3D Printer That "Prints" Glass From Sand

We have covered 3D printing before, but never anything like this.

Colossal reports on the work of Markus Kayser, an MA student at the Royal College of Art, who has combined two of the most super-abundant resources found in the desert, sand and sun, to make a pretty incredible printer.

He had previously invented a device to use the sun's rays to cut out objects. Anyone who as a school child burned holes in their tie during boring physics lessons using a magnifying lens knows the principle, but Mr. Kayser, in a project called Sun-Cutter, took this to the next level.

East European News & Trends

Volkswagen To Boost Russian Production

German carmaker Volkswagen plans to boost production in Russia in the medium term, a spokesman for the company said, to tap into growth outside its home market and take advantage of incentives.

Moscow expects foreign auto makers to invest $7 billion in Russia as a result of customs duty breaks granted to companies planning to make at least 300,000 cars there per year by 2015, up from 25,000.

Russian Internet Growth Provides Opportunity And Challenge

Russia is one of the largest and fastest growing Internet markets in Europe, but remains dominated by local players. As such, it represents a unique opportunity for expansion but a challenging market, according to recent research.

Russia has some 60 million Internet users, making it the second largest after Germany (with 65 million), but only five years ago the market was struggling to top 10 million (making it smaller than the Netherlands). If you factor in the other Russian-speaking markets in the CIS, the total market will be 130 million by 2013, according to figures published by GP Bullhound, the U.K- based international technology-focused investment bank

Italy's Fiat Close To $1.1 Billion Russia Investment

MOSCOW (Reuters) - Italian carmaker Fiat SpA will invest $1.1 billion and build 120,000 cars a year in Russia to take advantage of state investment incentives and a recovering car industry, Russia's Economy Ministry said.

The company, which was left without a local Russian partner after a proposed deal with Sollers fell through earlier this year, has been drawing up plans to go it alone and may finalize a deal this week, the ministry's senior official in charge of car assembly negotiations Dmitry Levchenkov told reporters.

"We have prepared the agreement. It will be signed later this week. The agreement is based on an old assembly regime, but Fiat is taking on additional obligations -- a new (higher) capacity of 120,000 cars per year," Levchenkov said.

Russia And China Hope To Reach Gas Deal

Hu Jintao, the Chinese leader, begins a state visit to Russia on Wednesday that both sides hope will culminate in signing a landmark gas agreement cementing ties between the world’s biggest energy consumer and producer.

However, Russian and Chinese gas officials were still trying on Tuesday to agree the commercial terms of a deal that would pave the way for the supply of 68bn cubic metres of Siberian gas a year to China for the next 30 years.

Slovakia to Boost Car Output 12 Percent, Industry Group Predicts

Slovak car makers will probably boost production 12 percent this year as foreign demand has revived, the Association of the Slovak Automotive Industry said.

The Slovak units of Kia Motors Corp. (000270), PSA Peugeot Citroen and Volkswagen AG (VOW) will assemble a record 630,000 vehicles this year, compared with 561,993 cars in 2010, the industry association said today in an e-mailed statement from Bratislava, Slovakia.

The Slovak economy is benefiting from a revival in export demand after the 2009 recession. Peugeot and Volkswagen have announced plans to expand production in the eastern European country, attracted by its euro-area membership and labor costs lower than in the West.

Philips, ROSATOM To Develop Nuclear Medicine Industry Ecosystem In Russia

Dutch healthcare and consumer good maker Royal Philips Electronics NV (PHG: News ,PHGFF.PK: News) Monday announced a partnership with Russian State Atomic Energy Corp. or ROSATOM to develop a nuclear medicine industry ecosystem in Russia.

The partnership is seen as a major step towards enabling better healthcare in Russia as nuclear medicine is an important medical imaging technique used to diagnose and stage cancer.

Russian Companies Form RFID Joint Venture

Russian nanotechnology company Rusnano, along with Sitronics, a Russian electronics company, and X5 Retail Group, Russia's largest retailer, have joined in an agreement to bring radio frequency identification (RFID) technologies to Russia's retail industry.

According to an announcement of the agreement, the new joint venture will not only introduce the technology, but will also develop standards and practices for the commercialization of the technology in Russia. The goal of the joint venture is to open Russa's first "model grocery store for the future" by 2013 based on X5's retail platform to demonstrate the viability and RFID.

University Of Warsaw Installs Microscopic Semiconductor Structure Fabrication Equipment

University of Warsaw's Faculty of Physics has installed focused ion beam (FIB) milling equipment that can produce micropillars, which are microscopic semiconductor structures from numerous cautiously selected layers having a nanoscale thickness. The micron-sized columns or micropillars will be utilized to develop effective yellow light lasers.

This latest equipment paves the way to special educational opportunities for students pursuing nanotechnology engineering. Micropillars are a type of optical microcavities, an arrangement in which small volumes of photons are detained for a very long time.

World Economic Round Up

According to the Organisation for Economic Cooperation and Developments (OECD) composite leading indicators, the world's largest economies are set to expand at a more moderate pace in the months ahead with Brazil, India, France and Italy facing below-trend growth. Among developing economies, there were clear signs that growth will be slower than the long-term trend in Brazil and India while leading indicators point to a possible moderation of growth in China and the first signs of a loss of growth momentum in Russia.

The latest economic news by country to include USA, Europe, UK, Japan, China, Asia Pacific and India can be found each month in our Semiconductor Monthly Report.

Industry Events

Future Horizons Events

- Silicon Chip – 5th September
- IEF 2011 – 5th – 7th October, Seville
- Silicon Chip – 21st November

To book your place on any of our events please contact us on:

Telephone: +44 1732 740440
Email: mail@futurehorizons.com

Download Future Horizons Full Events Calendar Here

Industry Events

- ESC India – 20th -22nd July
- Semicon West 2011 – 12th – 15th July
- SPIE Optics – Photonics 21st – 25th August

NEW INTERNATIONAL ELECTRONICS FORUM DATE ANNOUNCED

5-7 OCTOBER, 2011

SEVILLE, SPAIN

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